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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/802,426	03/17/2004	Trevor Adrian	15474.3.1.1	3868

22913 7590 04/02/2007  
WORKMAN NYDEGGER  
(F/K/A WORKMAN NYDEGGER & SEELEY)  
60 EAST SOUTH TEMPLE  
1000 EAGLE GATE TOWER  
SALT LAKE CITY, UT 84111

EXAMINER
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LE, HUYEN D

ART UNIT	PAPER NUMBER
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3751

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	04/02/2007	PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

**Office Action Summary**

Application No.

10/802,426

Applicant(s)

ADRIAN, TREVOR

Examiner

Huyen Le

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3751

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 20 March 2007.  
2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.  
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-4, 6-10, 12-24, 27, 29-32, 34-39 and 41-45 is/are pending in the application.  
4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.  
5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.  
6) ☒ Claim(s) 1-4, 6-10, 12-24, 27, 29-32, 34-39 and 41-45 is/are rejected.  
7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.  
8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.  
10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).  
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All b) ☐ Some \* c) ☐ None of:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)  
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)  
3) ☐ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_.  
4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_.  
5) ☐ Notice of Informal Patent Application  
6) ☐ Other: \_\_\_\_\_

## **DETAILED ACTION**

### ***Claim Objections***

1. Claim 1 is objected to because of the following informalities: line 13, after "plurality of fuel burners", "is" should be changed to --are--. Appropriate correction is required.

### ***Claim Rejections - 35 USC § 102***

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 12-20, 21-24, 27, 29-31, 32, 34-39, 44 and 45 are rejected under 35 U.S.C. 102(b) as being anticipated by Wolter (4,550,689).

The Wolter reference discloses a portable water heater comprising: a housing 1 having a plurality of walls 2-6; a heat transfer conduit 34 fluidly connected to a water source and configured to output heated water outside of the housing 1, the heat transfer conduit 34 configured into a coiled tube; and a fuel burner 24 (or 25 or 26) in thermal communication with the heat transfer conduit 34, the fuel burner 24 being entirely outside of the coiled tube 34, the fuel burner being positioned such that the flame of the fuel burner is substantially perpendicular to the coiled tube being directly heated (nothing between the coil 34 and the burner 24 except air so the coil 34 is directly above the burner 24).

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Regarding claims 13, 24, the coiled tubing 34 is disposed about a horizontal axis in the housing 1.

Regarding claims 14, 21 and 34, since Fig. 15 of the present application shows a burner 346 one side of the coil 316, the fuel burner 24 of Wolter is situated in relation to the heat transfer conduit 34 (as much as the burner 346 to the coil 316) so as to evenly distribute heat along the length of the heat transfer conduit 34.

Regarding claims 15, 35, the housing 1 further comprises a plurality of plates 17 and 18, the plurality of plates 17 and 18 being disposed about the heat transfer conduit 34 and fuel burner 24 and spaced apart from at least some of the plurality of walls 2-6 of the housing 1.

Regarding claims 16, 27 and 36, a pipe 30 attached to the back wall 2 constitutes one support rod disposed horizontally between two spaced apart vertical plates 18, wherein the heat transfer conduit is supported by the rod 30.

Regarding claims 17 and 37, the heat transfer conduit 34 is fluidly connected to an intake conduit 27 (Fig. 2).

Regarding claims 18, 29 and 38, the intake conduit would essentially be connected to a pump (col. 7, lines 40-44).

Regarding claims 19, 30 and 39, the heat transfer conduit 34 is fluidly connected to an outlet conduit 14, the outlet conduit 14 will be terminating at a shower head (col. 8, lines 52-56).

Regarding claims 20, 31, the upper surface 8 is the surface where the combusted gas is vented out (Fig. 2) so the surface 8 can be used for heating items while the portable water heater is in use.

Regarding claim 44, the housing 1 comprises a top wall 8 and a bottom wall 5, the top wall and bottom walls comprise openings 40-41.

***Claim Rejections - 35 USC § 103***

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 1- 4, 6-10, 41-43 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wolter (4,550,689) in view of Van Vliet (3,935,855).

Although Wolter does not disclose that each of the plurality of burners is independently operable, attention is directed to the Van Vliet reference which teaches a heating assembly having a plurality of burners 4, each of the burner 4 having a separate control.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the Wolter heating system in view of the teaching of Van Vliet to have each of the burners 24-26 independently operable so that the heating of the water more precisely controlled.

Regarding claims 2-4, the coiled tubing 34 is disposed about a horizontal axis in the housing 1.

Regarding claim 6, the housing 1 further comprises a plurality of plates 17 and 18, the plurality of plates 17 and 18 being disposed about the heat transfer conduit 34 and fuel burner 24 and spaced apart from at least some of the plurality of walls 2-6 of the housing 1.

Regarding claim 7, a pipe 30 attached to the back wall 2 constitutes one support rod disposed horizontally between two spaced apart vertical plates 18, wherein the heat transfer conduit is supported by the rod 30.

Regarding claim 8, the heat transfer conduit 34 is fluidly connected to an intake conduit 27 (Fig. 2).

Regarding claim 9, the intake conduit would essentially be connected to a pump (col. 7, lines 40-44).

Regarding claim 10, the heat transfer conduit 34 is fluidly connected to an outlet conduit 14, the outlet conduit 14 will be terminating at a shower head (col. 8, lines 52-56).

### ***Response to Arguments***

6. Applicant's arguments with respect to claims 1, 12, 21 and 32 have been considered but are moot in view of the new ground(s) of rejection.

### ***Conclusion***

7. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Halmasy, Sr. teaches a fuel burner 19 outside of a coiled tube 9 and the flame is substantially perpendicular to the coiled tube 9.

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8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Huyen Le whose telephone number is 571-272-4890.

The examiner can normally be reached on Monday-Friday from 9:00 am to 5:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Gregory Huson can be reached on 571-272-4887. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



Huyen Le  
Primary Examiner  
Art Unit 3751

HL